



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,991	10/17/2001	Bassam M. Hashem	71493-953/pw	4493
7590 SMART & BIGGAR P.O. Box 2999, Station D 900-55 Metcalfe Street Ottawa, ON K1P 5Y6 CANADA				
			EXAMINER HUYNH, NAM TRUNG	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 09/18/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/977,991

**Applicant(s)**

HASHEM ET AL.

**Examiner**

NAM HUYNH

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 8, 9 and 14 is/are rejected.
- 7) ☒ Claim(s) 2-5, 7, 10-13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 6, 8, 9, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avidor et al. (US 6,654,612) (hereinafter Avidor) in view of Shakhgildian (US 6,584,325), and further in view of Lyler et al. (US 6,295,450) (hereinafter Lyler).

Regarding claim 1, Avidor teaches a method of selecting at least one base station for communicating with a terminal in a wireless communication system, comprising file steps of:

storing an uplink candidate set listing at least one candidate uplink base station (column 10; lines 27-33);

storing a downlink candidate set listing at least one candidate downlink base station (column 10, lines 27-33);

However, Avidor does not explicitly teach determining a predominant direction of traffic with respect to the terminal and if the predominant direction of traffic is in an uplink direction, selecting at least one optimum base station from the uplink candidate set. Shakhgildian discloses a subscriber unit and method of cell selection for a cellular communication system. Shakhgildian teaches that a subscriber unit receives uplink and downlink characteristics information for a target set of base stations (column 5, lines 35-43) and uses these performance indicators for cell selection (column 5, lines 54-67). If a short message data message is to be transmitted from the subscriber unit (determining a predominant direction of traffic with respect to the terminal in an uplink direction), then the base station with the best uplink performance will be selected (if the predominant direction of traffic is in an uplink direction, selecting at least one optimum base station from the uplink candidate set) (column 6, lines 6-16). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the prioritization algorithm of Avidor to determine the best uplink resource if the predominant direction of traffic is in the uplink direction, as taught by, as taught by

Shakhgildian, in order to optimize system resource when a mobile device sends data in an uplink direction. This modification provides a better balance between downlink and uplink quality criteria in cell selection resulting in a more efficient utilization and thus increased capacity of the cellular communication system.

The combination of Avidor and Shakhgildian does not explicitly teach that if the predominant direction of traffic is in a downlink direction, selecting at least one optimum base station from the downlink candidate set. Lyler discloses a method for transferring communication within a communication system (title). Lyler broadly teaches the selection of base stations for supporting specific requirements of a remote unit which includes the requirements for the communication network to provide support for a certain call type (e.g. voice, video, and data) (column 1, lines 40-46; column 4, lines 13-33). A skilled artisan would recognize that in order for the network to properly provide support for a call type such as video or data, the base station with the best downlink quality would have to be selected since these call types require data transfer in the downlink direction. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Avidor and Shakhgildian, to include the capability to choose an optimum base station when a service is required in the downlink direction, as taught by Lyler, in order to allow the base station best qualified to serve the mobile device when a video or data is to be provided by the network to be selected thereby allow the network to provide services within a certain quality of service or constraint.

Regarding claims 6 and 14, Shakhgildian teaches transmitting an identity of the at least one optimum base station to the terminal (column 4, lines 18-29).

Regarding claims 8 and 9, the limitations are rejected as applied to claim 1.

#### ***Allowable Subject Matter***

5. Claims 2-5, 7, 10-13, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 6, 8, 9, and 14 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/  
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/  
Examiner, Art Unit 2617